

Attorney Docket No. LUKP:123US  
U.S. Patent Application No. 10/711,823  
Reply to Office Action of November 1, 2005  
Date: February 1, 2006

## **Remarks**

### Amendment to the Specification

The Examiner rejected Claims 2-9 under 35 U.S.C. § 112, first paragraph for using a term outside its normally accepted meaning. Specifically, the Examiner noted that the term “jib”, normally used as a nautical term to define a type of sail, is not explicitly defined as it is used in the specification. Applicants have amended paragraph 0013 to more clearly define the term “jib” as a cantilevered bar or rod extending from gearbox actuator 1 into a gear box and used to guide and support a plurality of gear shift rails. This amendment is supported by paragraph 0013 of the original specification describing the jibs as protruding into a gearbox. Further support is seen in original Figures 1 and 2 which show jibs 12-15 as straight rods or bars as referenced and described in paragraph 0013. Applicants respectfully submit that the original specification and drawings support the definition of the term “jib” inserted into paragraph 0013 and thus the amendment to the specification adds no new matter to the instant application. Applicants respectfully request entry of the amended specification into the application.

### Objections to the Drawings

The Examiner objected to the drawings under 37 CFR § 1.83 (a) as failing to show every feature of the invention specified in the claims. The Examiner states that the drawings fail to show the bearing arrangement of two symmetric jibs claimed in Claims 6 and 7 and guide shoe parts claimed in Claim 8. In addition, the Examiner states that the drawings fail to show the guide shoe part 38 described in the specification. Applicants have amended the drawings and respectfully request reconsideration and withdrawal of the objection to the drawings.

Applicants have amended Figure 2 by adding three additional guide shoe parts at the ends of jibs 12, 13, and 15. Original Figure 2 depicted a guide shoe part on jib 14. In addition, in amended Figure 2, reference number 38 is added and refers to the four guide shoe parts of amended Figure 2.

Attorney Docket No. LUKP:123US  
U.S. Patent Application No. 10/711,823  
Reply to Office Action of November 1, 2005  
Date: February 1, 2006

Applicants respectfully point out that the claim element “two jibs” claimed in Claim 6 is seen in original Figure 3 in which two jibs 32 and 33 are shown protruding from gearbox actuator 30. (See paragraph 0015 of the specification.) Regarding Claim 7, the claim element “two jibs at time are symmetrically opposite each other with respect to the selector shaft” is seen in both original Figure 1 and amended Figure 2. (Emphasis added.) Jib pairs 12 - 13 and 14 - 15 (“two jibs at a time” meaning pairs) are arranged symmetrically around selector shaft 2. Applicants respectfully point out that the claimed symmetry is demonstrated by the position of each member of each pair of jibs positioned equally distant from selector shaft 2 on opposite sides of selector shaft 2. Applicants respectfully submit that all claim elements of Claim 7 are seen in the drawings as amended as well as the original drawings. Applicants respectfully request reconsideration and withdrawal to the objections to the drawings.

#### The § 112 Rejections of Claims 1-9

The Examiner rejected Claims 1-9 under 35 U.S.C. § 112, first paragraph as failing to comply with the enablement requirement. Specifically, the Examiner states that in Claim 1, it is not evident how the claimed bearing arrangement serves to guide the gear shift rails. In addition, the Examiner states that the purpose of the upper jibs is not clear and that the guide shoe parts are neither evident nor is their purpose clear. Applicants respectfully traverse these statements and request reconsideration and withdrawal of the rejections under § 112, first paragraph.

Regarding the purpose of the upper jibs, Applicants respectfully submit that the language of the specification combined with the drawings enable a person skilled in the art to determine the purpose of the upper jibs. Figures 1 and 2 depict selector shaft 2 as retaining shift finger 3 and disengaging elements 4. Sliding element 37 is fitted around selector shaft 2. Selector shaft 2 is rotated by motor 5 as evident by the semicircular toothed wheel that cooperates with toothed wheel 16. In addition, motor 8 drives spindle 9 which is attached to slide element 37. Applicants respectfully submit that a person skilled in the art would recognize that the semicircular toothed segment would generate rotational motion to selector shaft when connected to circular toothed wheel 16 and rotating in bearing 19. (See paragraph 0012 describing selector

Attorney Docket No. LUKP:123US  
U.S. Patent Application No. 10/711,823  
Reply to Office Action of November 1, 2005  
Date: February 1, 2006

shaft 2 as driven by motor 5 via toothed segment 7 engaged to toothed wheel 16.) Similarly, the connection of sliding element 37 to spindle 9 and motor 8, seen in Figures 1 and 2 and described in paragraph 0012, would demonstrate to a person of skill in the art that such an arrangement would enable shift finger 3 and disengaging elements 4 to move in a straight line between the upper and lower jibs. Applicants respectfully submit that it would be clear to a person of skill in the art that the movement of the selector shaft in both the rotational and vertical directions enable shift finger 3 and disengaging elements 4 to select and move gear shift rails supported by the upper jibs 12 and 13 as well as lower jibs 14 and 15 thereby demonstrating the support purpose of upper jibs 12 and 13. Applicants respectfully point out that support of gear shift rails is described in paragraph 0013 of the specification. (See paragraph 0013 – “Housing 10 has a bearing arrangement for the gearshift rails that preferably comprises two upper jibs 12, 13 as well as two lower jibs 14, 15 that preferably protrude from attachment part 11 into the gear and that between themselves guide and support the packet of gearshift rails.” Emphasis added.)

Regarding the guiding function of the jibs, Applicants respectfully submit that the application of each of the guide shoe parts at the end of jibs 12-15 form a raised surface, as seen in amended Figure 2, that acts as a stop that retains guide shift rails on the jibs.

Regarding the guide shoe parts, Applicants respectfully traverse the Examiner’s statement that it is unknown what the guide shoes are with respect to the rails. Applicants have amended Figure 2 to add the three missing guide shoe parts showing how they are positioned on the open ends of jibs 12-15. This is described in paragraph 0013 describing guide shoe parts as “arranged at the ends of jibs 12-15...”.

Thus, Applicants respectfully submit that a person of skill in the art would recognize from the drawings and specification both the support and guide functions of the upper and lower jibs and the function and position of the guide shoe parts with respect to the guide shift rails. Applicants respectfully request reconsideration and withdrawal of the rejections of Claims 1-9 under § 112, first paragraph.

Attorney Docket No. LUKP:123US  
U.S. Patent Application No. 10/711,823  
Reply to Office Action of November 1, 2005  
Date: February 1, 2006

The Examiner rejected Claims 1-9 under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as their invention. Applicants respectfully traverse this rejection and request reconsideration.

The Examiner states that it is unclear as to the metes and bounds of the term “disengaging shaped elements.” Applicants respectfully point to the exact term in paragraph 0012 as a pair of items labeled reference number 4 located on selector shaft 2 with one of the pair located above shift finger 3 and the other located below shift finger 3. This is further described in paragraphs 0002 and 0005 in which the single shift finger and the disengaging shaped elements are described as operating the gear shift rails. Therefore the term “disengaging shaped elements” refers a pair of elements located above and below the shift finger on the selector shaft that disengage the gear shift rails.

The Examiner rejected Claims 2-9 under § 112, second paragraph for incorporating the term jib into those claims while using that term in a context outside its commonly accepted meaning as a type of sail. Applicants have amended paragraph 0013 to define explicitly the term jib as it is used in the specification. Applicants also respectfully note that a second dictionary definition of a jib is a “projecting arm of a crane” which is somewhat closer to structure of the jibs disclosed in the instant application. (See *The New Oxford American Dictionary*, 2001 and Merriam-Webster Online Dictionary ([www.m-w.com/cgi-bin/dictionary](http://www.m-w.com/cgi-bin/dictionary)). As noted above, support for this explicit definition of jib is found in original Figures 1 and 2 and in original paragraph 0013. Applicants respectfully request reconsideration and withdrawal of this rejection under § 112, second paragraph.

The Examiner rejected Claim 4 under § 112, second paragraph stating it is unclear what defining characteristics, and thus metes and bounds, are of the claimed shape of an injection molded part. Applicants have amended Claim 4 to claim the article of manufacture in which the attachment part and the jibs are manufactured as an injection-molded piece. Support for this amendment is found in paragraph 0013 of the application. Applicants respectfully request reconsideration and withdrawal of this rejection under § 112, second paragraph.

Attorney Docket No. LUKP:123US  
U.S. Patent Application No. 10/711,823  
Reply to Office Action of November 1, 2005  
Date: February 1, 2006

The Examiner rejected Claims 6 and 7 under § 112, second paragraph stating it is unclear what structure is of the two symmetric jibs with respect to the invention. Applicants respectfully traverse this rejection and request reconsideration.

First, Applicants respectfully point out that Claim 6 depends from Claim 2 and only claims two jibs in the claimed gearbox actuator and makes no mention of symmetry. Support for Claim 6 is found in Figure 3 and paragraph 0015 of the specification. The structure of the jibs has been described in the amended specification. Applicants respectfully request reconsideration and withdrawal of the § 112, second paragraph rejection of Claim 6.

Second, Applicants respectfully point out that Claim 7 depends from Claim 2 and actually claims a gearbox actuator in which “two jibs at a time are symmetrically opposite each other with respect to the selector shaft.” Thus, Claim 7 claims the embodiment in which at least two jibs are symmetrical in that they are placed on opposite sides and equidistant from the selector shaft. This arrangement is shown in Figures 1 and 2 and described in paragraph 0013. (See paragraph - “Preferably, the upper and lower jibs **12, 13, 14, 15** are symmetrically opposite each other with respect to the selector shaft **2**.) Applicants respectfully request reconsideration and withdrawal of the rejection of Claims 6 and 7 under § 112, second paragraph.

### The § 102 (b) Rejections of Claims 1-9

The Examiner rejected Claims 1-9 under 35 U.S.C. § 102 (b) as anticipated by U.S. Patent No. 5,816,101 to Weston (“Weston” or “the Weston patent”). Applicants have amended Claim 1. Applicants respectfully traverse the rejection of Claim 1 as amended and respectfully request reconsideration.

“A claim is anticipated only if each and every element as set forth in the claims is found, either expressly or inherently described in a single prior art reference.” *Vandergaal Bros. v. Union Oil of California*, 814 F.2d 628, 631; 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). MPEP § 2131. (Emphasis added.) Applicants respectfully submit that the Weston patent fails to anticipate amended independent Claim 1 as it fails to disclose every element of that claim. Claim 1 has been amended to claim a gearbox actuator that comprises a single selector shaft

Attorney Docket No. LUKP:123US  
U.S. Patent Application No. 10/711,823  
Reply to Office Action of November 1, 2005  
Date: February 1, 2006

upon which are arranged a shift finger and disengaging shaped elements. In contrast, the Weston patent only discloses a gearbox actuator with two selector shafts. Applicants respectfully note that Figures 1, 4, and 5 only disclose a single gearbox actuator 100 possessing a single housing but with two pivot rods 112 and 113 protruding therefrom. The Examiner stated that reference numbers 112-117 are selector shafts. Applicants respectfully note that Figure 3 is a cross section of the transmission disclosed in the Weston patent taken through the actuator and would thus only show one of the two selector shafts in the gearbox actuator 100. Applicants note that nowhere in Weston is there suggested the use of a single selector shaft in a gearbox actuator. Thus, for this reason, the Weston patent fails as a reference under § 102 (b) as it fails to disclose a gearbox actuator as disclosed and claimed in amended Claim 1. Applicants respectfully request reconsideration and allowance of Claim 1 as amended.

Claims 2-9 depend from Claim 1 and thus incorporate all the limitations of that claim. Because, as discussed above, the Weston patent fails to anticipate all the elements of Claim 1, it also fails to anticipate Claims 2-9. Applicants respectfully request the removal of the rejections of Claims 2-9 and allowance of those claims.

In addition, Applicants specifically traverse the rejection under § 102 (b) of dependent Claim 2 as anticipated by the Weston patent. Applicants respectfully traverse the statement by the Examiner that the left/right support openings 130 and left/right support openings 140 should be interpreted as the two lower jibs and the two upper jibs respectively. Applicants note that the jibs are defined as cantilevered rods or bars that extend from gearbox actuator housing 11 and support gear shift rails. The cantilevered bar configuration is seen in Figures 1 and 2. Applicants also respectfully point out that this arrangement gives the single selector shaft access to both upper and lower pairs of jibs to engage the gear shift rails that are supported on those jibs. In contrast, the openings for supports 130 and 140 are disclosed as orifices open in only in the horizontal direction, with horizontal being defined as the direction of travel of supports 130 and 140. Because the orifices are enclosed, access to the supports is available for only one selector shaft connected to the respective support. For this reason it is not possible for a single selector shaft to access both support 130 and 140. For this reason, Applicants respectfully

Attorney Docket No. LUKP:123US  
U.S. Patent Application No. 10/711,823  
Reply to Office Action of November 1, 2005  
Date: February 1, 2006

submit that the orifices holding supports 130 and 140 are not jibs as defined in the instant specification as they are not cantilevered bars or rods that enable the claimed gearbox actuator to function with only a single selector shaft as is claimed in Claim 2.

Moreover, Applicants note that in order to anticipate a claim the cited reference must disclose the claimed arrangement as arranged in that claim. “Every element of the claimed invention must be literally present arranged as in the claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989). (Emphasis added.) Applicants note that the jibs in Claim 2 receive the gearshift rail between those jibs (“between them”). Applicants respectfully point out that a single support 130 is in the orifice containing support 130 and a single support 140 is in the orifice holding support 140. Thus, it is not structurally possible for the gearshift rails to be received between the orifices as there is only one orifice for each support and thus another support is not available for the supports to pass between. For this additional reason, the Weston patent fails as a reference under § 102 (b) to anticipate Claim 2. Applicants respectfully request reconsideration and allowance of Claim 2.

Claims 3-9 depend from Claim 2 and thus incorporate all the limitations of that claim. Because, as discussed above, the Weston patent fails to anticipate all the elements of Claim 2, it also fails to anticipate Claims 3-9. Applicants respectfully request the removal of the rejections of Claims 3-9 and allowance of those claims.

Attorney Docket No. LUKP:123US  
U.S. Patent Application No. 10/711,823  
Reply to Office Action of November 1, 2005  
Date: February 1, 2006

### Conclusion

Applicant respectfully submits that the present application is now in condition for allowance, which action is courteously requested. The Examiner is invited and encouraged to contact the undersigned attorney of record if such contact will facilitate an efficient examination and allowance of the application.

Respectfully yours,



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Attorney Docket No. LUKP:123US  
U.S. Patent Application No. 10/711,823  
Reply to Office Action of November 1, 2005  
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## **Appendix**

Attorney Docket No. LUKP:123US  
U.S. Patent Application No. 10/711,823  
Reply to Office Action of November 1, 2005  
Date: February 1, 2006

### **Amendments to the Drawings**

The attached sheet of drawings includes changes to Fig. 2. This sheet, which includes Figs. 1 and 2, replaces the original sheet including Figs. 1 and 2. In Figure 2, three of the previously omitted guide shoe parts have been added. In addition, reference number 38, designated in paragraph 0013 (page 4, line 4) has been added to refer to the four guide shoe parts.

Attachment: Replacement Sheet